AMENDMENTS TO THE CLAIMS

1. (Currently amended) An isolated nucleic acid molecule encoding a secoisolariciresinol dehydrogenase protein, wherein the isolated nucleic acid molecule hybridizes to the complement of a nucleic acid molecule consisting of the nucleic acid sequence set forth in SEQ ID NO:1 under conditions of [[4]] 2 X SSC at [[35°C]] 55°C for 15 minutes.

2-7. (Canceled)

8. (Currently amended) A nucleic acid molecule of Claim 1 encoding a secoisolariciresinol dehydrogenase protein consisting of the amino acid sequence of ~~any one of~~ SEQ ID NO:2~~, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8 and SEQ ID NO:10~~.

9. (Currently amended) A nucleic acid molecule of Claim 1 consisting of the nucleic acid sequence of ~~any one of~~ SEQ ID NO:1~~, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7 and SEQ ID NO:9~~.

10-17. (Canceled)

18. (Currently amended) A replicable expression vector comprising a nucleic acid sequence encoding a secoisolariciresinol dehydrogenase, wherein the nucleic acid sequence hybridizes to the complement of SEQ ID NO:1 under conditions of [[4]] 2 X SSC at [[35°C]] 55°C for 15 minutes.

19. (Canceled)

20. (Currently amended) A replicable expression vector of Claim 18 comprising a nucleic acid sequence encoding a secoisolariciresinol dehydrogenase consisting of [[an]] the amino acid sequence ~~selected from the group consisting~~ of SEQ ID NO:2~~, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8 and SEQ ID NO:10~~.

21. (Currently amended) A host cell comprising a replicable expression vector comprising a nucleic acid sequence encoding a secoisolariciresinol dehydrogenase, wherein the

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nucleic acid sequence hybridizes to the complement of SEQ ID NO:1 under conditions of [[4]] 2 X SSC at [[35°C]] 55°C for 15 minutes.

22.-31. (Canceled)

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